

Contaminants Present in WACAP Parks

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Over 100 different semi-volatile organic compounds (including polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), pesticides, and polybrominated diphenyl ethers (PBDEs)) and 51 trace elements (including mercury) were measured in WACAP snow, lake water, sediment, fish, and vegetation samples. These contaminants were chosen because of their wide range of physical chemical properties, release from a variety of different source types, and their different periods of use or release in North America. The concentration of pesticides in annual snowpack was influenced by regional current and historic agricultural practices. PBDE concentrations in fish collected from the lower states was comparable to PCB concentrations. Mercury flux to sediments was up to 10 times greater in parks in the lower states than in Alaska, yet mean Alaska fish concentrations of mercury were approximately 2 times higher than other parks. This is likely due to the influence of watershed and foodweb factors affecting bioaccumulation of mercury.